

Private Flying



Topics of the Day

This Landing Business

AFTER a good deal of heavy thinking and some discussion I am still unable to explain why and how the pilot knows exactly when to ease the control column back for a three-point landing. I know that normally intelligent people may take anything from four to fourteen hours of dual instruction before being permitted to go solo, and that at least 80 per cent. of this instructional time is involved in this curious business.

My instructor used to tell me that the "sinking feeling" would eventually be apparent to me, but even after I had been pushed off by myself I was still quite capable of dropping the oddly unprepossessing affair on its wheels. The only difference between these landings and some which the patient instructor had had to deal with was that I had learnt *not* to pull the stick back just as soon as I felt the impact with Mother Earth—in fact, I had learnt to ease it forward very slightly and quite momentarily.

"Right Back"

SINCE the normally healthy pilot can usually manage to pull off a "three-pointer" with any machine, whether with a light or with a heavy elevator, the knowledge cannot be connected entirely with control "feel."

The perfect instructor—the word "perfect" implying one who does not manifestly keep his hand and feet on the controls—knows exactly when it is safe, after a series of "back a little—hold it!" variations, to use the exciting words "Right back!" so, obviously, he feels that the machine must then be ready to land. It is easy to say that a lack of buoyancy is evident; this lack is progressive and varies with different machines.

Probably the truth is that this instinct is the combined effect of a whole series of clues which are being noted by the subconscious mind. One's body registers the fact that the aeroplane is sinking and that it is becoming increasingly difficult to keep it in the air; one's eyes register the definite slowing down of the turf; and one's hands and feet proclaim the fact that the controls have become entirely loose. Perhaps the moment is finally discovered when it is realised that a backward twitch on the stick no longer results in an imperceptible ballooning effect and the stick is instinctively moved faster and farther in a final effort to prevent the impact which one knows to be inevitable.

The mystery has its counterpart in the control of that simpler means of transport—the bicycle. Can anyone tell me how the rider negotiates a bend or how he originally learnt to balance this contrivance by means of a control which moves in a quite different plane from that in which he is tending to fall? The human animal is certainly simian in his muscular dexterity even if he sometimes shows sub-simian characteristics in his tribal affairs.

Simplification Necessary

NEVERTHELESS, however simple the performance may appear to the expert, it is high time that our designers seriously set about the business of reducing the difficulties both in the landing and in the approach. Not in order to encourage a host of remarkably inefficient people to take kindly to the idea of private ownership, but merely to reduce the number of minor casualties which occur during the critical phase of the return to earth.

Only last week I watched a perfectly good transport aeroplane, in the hands of an experienced pilot, overrun a reasonably large aerodrome and sit quite gently on its expensive nose. If this machine had been designed to approach steeply and safely at a speed little in excess of its stall it would not have run furiously past the boundary lights and down a steep dip into a sort of imitation stone quarry. And if it had not been designed only for the traditional three-point landing it might not have gone over on its nose as soon as the undercarriage encountered a certain amount of resistance. The tail wheel would, so to speak, have been under the nose. Incidentally, I have only flown or flown in one machine with which it was safe to apply the brakes really hard immediately after the landing.

Facing the Facts

TALKING about nose wheels, I have yet to discover how the American pilots land those Vidal-inspired machines for the private owner. Presumably, they make some sort of "wheely" landing and then push the stick forward in order to keep the machine on the ground and to obtain ground control, which, in one case at least, is provided by the nose wheel. On the majority of English aerodromes it would still be necessary to do a semi-three-point in order to get the speed down as much as possible before touching. One would imagine that they take themselves off. In other words, the pilot merely lets his machine gather speed and then drops the tail (if there is one).

Whatever may be thought of these contrivances, there are certainly times when I think that the conventional aeroplane is the maddest contraption ever devised. Consider the take-off. One balances a rapidly accelerating vehicle on two wheels (which form a single pivot in the fore and aft plane) by means of a vertical lever. Meanwhile, it is highly unstable directionally, and one keeps it straight by means of a bar which is moved by one's feet.

This same principle is rigidly followed even in the very largest aeroplanes, which have, in addition, a series of engines laid out sideways in a row. When the unfortunate pilot opens up, any one of these engines may give more power than the others, and the resultant swing is fought in the initial stages by using the throttles as an organist uses his stops. Did you ever?

INDICATOR.